

Crocodile River Mine | For the six months ended  
31 December 2002



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## Key features

- Tonnes milled down 32% to 307 000 tonnes
- Cash costs up 24%
- Platinum in concentrate down 25% to 16 290 ounces
- Achieved dollar basket price down 4% to \$672/ounce
- Attributable loss of R17 million



## What we expected

### For the half-year

- 445 000 tonnes milled
- Average yield in concentrate of 2.64g/t
- Platinum in concentrate of 19 300 ounces

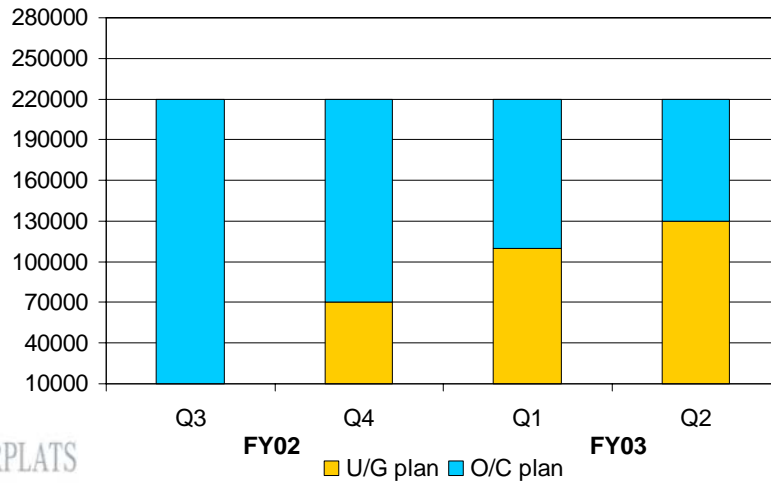
### Operationally

- Steady progression from open cast operations to underground operations, with a build-up in tonnages, at lower grades, but higher recoveries



## Open cast vs underground mining

Tonnes mined



## What we encountered

### Open cast mining

- Intersected potholes and dykes

### Underground mining problems

- Poor mining conditions
- Geological problems (potholes, dykes, faults – worse than expected)
- Slower than expected development
- Lack of available mining face

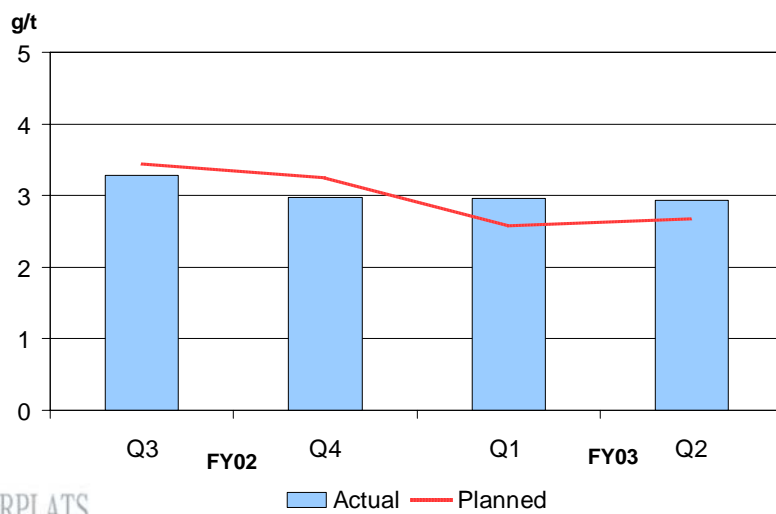


## Tonnes mined vs budget as a percentage

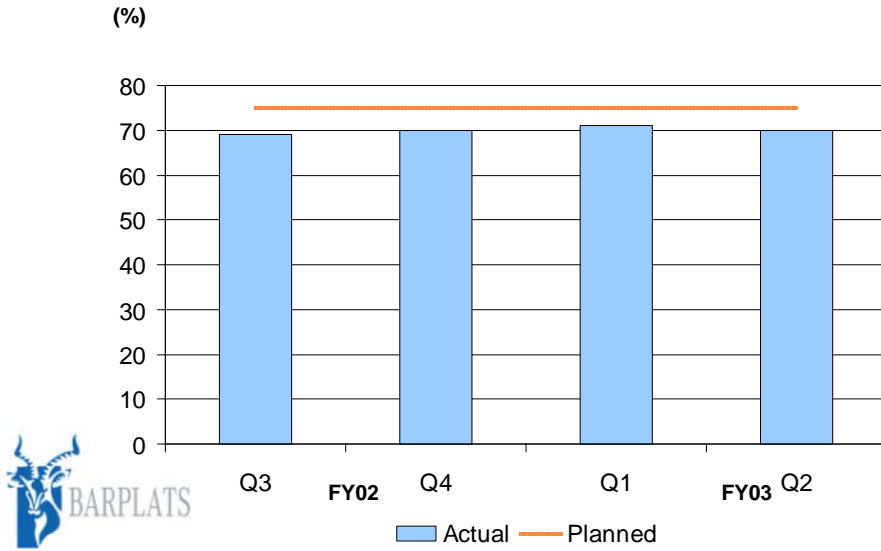
Calendar 2002 (%)	Q1	Q2	Q3	Q4
Open cast	78	80	120	88
Underground	-	51	43	25
<b>Total</b>	<b>78</b>	<b>67</b>	<b>81</b>	<b>53</b>



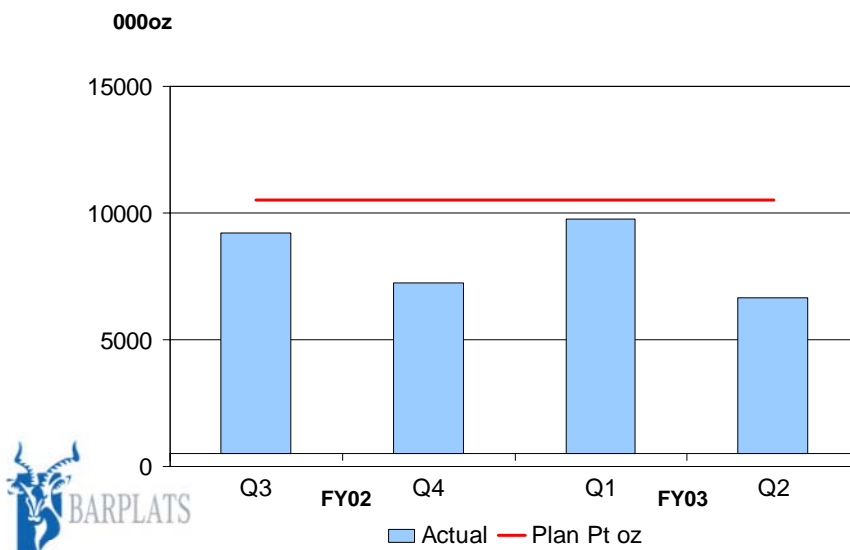
## Actual vs planned PGM head grade



## Actual vs planned recoveries



## Actual vs planned platinum in concentrate



## Results - Consolidated income statement

R'000	FY03 interims	FY02 interims	FY02
<b>Sales revenue</b>	<b>107 781</b>	<b>124 119</b>	<b>265 832</b>
<b>Cost of sales</b>	<b>107 283</b>	<b>96 908</b>	<b>193 162</b>
Contract mining cost	56 728	38 416	92 843
Contract concentrating costs	23 472	26 303	50 219
Amortisation of mining assets	22 960	28 656	41 794
Other costs	4 123	3 533	8 306
<b>Operating income</b>	<b>498</b>	<b>27 211</b>	<b>72 670</b>



## Results - Income statement continued

R'000	FY03 (interims)	FY02 (interims)	FY02
<b>Operating income</b>	<b>498</b>	<b>27 211</b>	<b>72 670</b>
Exploration expense	(4 162)	(11 552)	(18 919)
Other (expense)/income	(7 210)	24 063	10 503
Net financing expense	(6 046)	(6 967)	(9 162)
<b>Attributable (deficit)/income</b>	<b>(16 996)</b>	<b>32 729</b>	<b>54 959</b>



## What we did

Modified bord and pillar widths

Redesigned support systems

- Resin bolting
- Long anchors

Development strategy through dyke

- Further reduction of bord widths
- Increased supervision
- Sunday permit for development blasting



## Analysis of costs

- Lower production volumes
  - 60% of costs are fixed
- Higher stripping ratios resulted in opencast tonnes costing more
- Contractor costs higher as a result of additional development



## What next

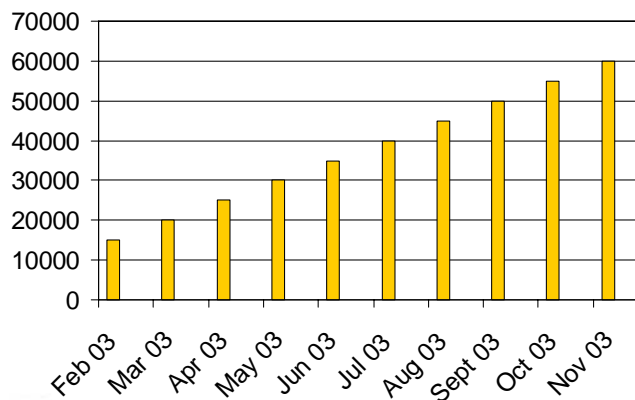
- Change mining method - bord and pillar to hybrid system
  - Mechanical development and conventional stoping
- Development sections
  - Change minor dip from 10.5° to 8°
  - Separate development from stoping
  - Dedicated equipment and personnel
- Stoping sections
  - Conventional stoping with mechanised cleaning



## The mining plan going forward

Revised targets as follows

Tonnes mined and milled per month





## Reserves and resources (UG2 orebody)

	Tonnage (000t)	Platinum (000oz)
Proved	500	30
Probable	8 300	590
Indicated	16 000	1 400



## Prospects

- Expected to continue to make losses for the rest of the financial year – aggravated by stronger rand
- Krokodil drift and Zandfontein
- Kennedy's Vale



**OPERATIONAL REVIEW**

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